XPERIMENTS IN TREE PLANTING.

Planting Tests From Which Some tonishing Facts Were Gathered.

(By W. R. Gilbert.)

account of a series of experi- ts in tree planting several yars in which I participated, may be terest.

may premise by stating the extra- nary fact that apple trees planted y, according to current rules as to planting, grew better than those ted in the orthodox way.

rees with injured roots not trim- were huddled into small holes, soil over them being stamped vio- ly and yet they made more growth trees planted in the usual way the roots carefully trimmed to off broken or bruised portions.

the following experiments 54 of trees, 560 in all, consisting of les, pears, plums and cherries were d and the result of the first year of trials were as astounding as those ntioned above and even still more phatic.

Two sets of trees, as nearly as pos- le equal in size and vigor were tried inst each other in each experiment, set being planted in what is ally regarded as the correct man- , while the trees of the other set re stuck into the holes gate-post hion and the soil placed over the ts was rammed heavily while it thoroughly puddled.

Out of ten trials with apple trees se which had been put in roughly d rammed gave greater wood wth in the first season than the ers in eight instances, the excess nging from 8 to 89 per cent and e of the exceptions was carried out such a light and sandy soil that effect of ramming was slight and short duration.

It was concluded that the effect of jury to the roots leads to the for- ation of a fresh set of roots, while e ramming puts the soil in close ntact with the roots and probably creases its capillarity.

As it may be presumed that trees of l kinds and not fruit trees alone ould be similarly affected by the ethods of planting, the subject is of reat importance.

For my part I cannot believe that e ramming did much damage to the ots for it is inconceivable that badly ashed roots was the result, for ex- erience shows that roots so injured ot off.

In speaking of putting the trees in mall holes, this is somewhat after the tringfellow method where the roots f the trees are trimmed off to mere tumps and the tops much the same nd the trees are thrust into the holes nd rammed. The chief object of this ystem is to make the trees send roots eeply into the soil, as a security gainst drought.

Great success has attended the sys- em of packing the under soil com- actly while keeping the top soil in a ne state of looseness by means of fre- uent cultivation, followed by mulch- ng.

The capillary of the lower soil is ncreased by its close packing so that ater from below is induced to raise bundantly to the roots of the trees nd plants while its evaporation is hecked by the fine and loose condi- ion of the surface soil.

I believe that these experiments ent far to prove that a heavier tamping in of the soil over the roots f trees than is commonly practiced, or even ramming is beneficial, and that cutting the roots back, say within three inches of the stems, causes the development of a more healthy and vigorous root system than is produced by only tipping the bruised ends.

But, as I have said, it seems con- trary to all reason that the bruising of the roots, per se, is beneficial.

The compression of the soil in a wide hole is desirable to an extent when it is not too wet, but planting in a narrow hole where the roots are cramped and curled must be con- demned in the light of general experi- ence which proves beyond all question that a wide spread of fibrous roots is conducive to rapid and healthy growth.

What do we find on digging up a dwarfed, dying or otherwise unhealthy bush? Almost, if not invariably, we see roots cramped and twisted and almost devoid of fibres. And why does transplanting young trees and bushes in a nursery induce the pro- duction of a mass of fibrous roots, except as a consequence of transfer- ence from a stale and compact place, to soil in condition of friable mould?

Almost any practicable degree of pressure over the roots in planting may be advantageous, but it does not follow that solidity to check sideways root growth is also beneficial. If it were so the annual digging, or, rather, forking of fruit plantations would call for condemnation.

Experienced growers of fruit mostly agree that they always find that trees planted well in acco raedcnwm 12345 planted well in accordance with what is generally considered the proper methods flourish better than those less carefully planted and this, there is every reason to believe, is the com- mon experience.

I am sure that experiments serve a useful purpose but should strongly recommend growers of fruit not to act on a large scale upon the results of any experiment, and although firmer planting than is usual may be tried, prudence directs that any further test- ing of the methods described should be limited, for some time to come, at least, to small operations.

MARKETING EGGS FROM THE FARM.

(By N. E. CHAPMAN.)

The common causes of loss may be classed under several heads: Small eggs, dirty eggs, breakage, shrunken and rotten eggs, mouldly and flavored eggs. Eggs must weigh two ounces or over to be classed as No. 1. Lighter eggs should be consumed on the farm, rather than be sold at a reduced price. Like eggs too small, eggs ab- normally large or misshaped should be used at home, for such will be easily crushed in the case, and are always classed as "seconds."

About five eggs out of each hun- dred marketed are classed as "dirties." These are stained, smeared, muddy, or covered with filth. The odor of what- ever soils the egg will soon penetrate the shell and flavor the contents. Mar- ket eggs should never be washed, as they take odors more rapidly and soon are stale. Eggs may be washed, how- ever, for use at home. Eggs carried to market in bran are generally classed as "dirties." The bran ad- heres to the shell, and is difficult to remove.

It is estimated that 8 per cent of the eggs are broken in moving from producer to consumer. Checked, dent- ed or leaking eggs soon sour, and must be marketed at greatly reduced prices. If checked or broken on the way to market, they should be taken home for use in the family.

Eggs should be gathered often and kept in a cool, dry place until the first opportunity for marketing. Broody hens should be taken from the nests at once, and confined by them- selves, unless needed for hatching pur- poses. After the hatching season is over, all roosters should be sold or confined, and not allowed to run with the laying flock during the summer. Hens will lay more eggs, and be in better health without the male birds. Infertile eggs are far superior for pre- serving, shipping and storing.

Sixty-five per cent of the contents of a fresh egg is water; and because of a porus shell this evaporates rapid- ly under most conditions, resulting in loss of weight and value. As soon as the newly-laid egg cools, an air-cell appears, which increases in size as the contents shrink from evaporation. Shrunken eggs may be detected by "candling," or by gently shaking when held to the ear. When the "gurgle" of the contents is distinct, the egg is questionable. The membrane of such eggs is often ruptured in handling and shipping, resulting in "frothy" eggs, of poor quality. In the summer eggs should receive the same care and con- sideration as sweet milk and cream, and be marketed daily, if possible. They should not be exposed to draughts of warm air, and should be protected from the rays of the sun and moisture, in handling, marketing and shipping.

Moisture is the main cause of rotten eggs. Nests on the ground or in wet straw, together with damp cellars and moist "fillers" in egg-cases, are mainly responsible for this condition. A fresh egg will absorb odors as readily as fresh milk. Mustiness or mouldy growth in egg-cases or fillers will taint the egg and lower its quality. Eggs should not be stored in musty cellars, or in rooms with fruit, vege- tables or fish. The chickens should never be allowed to drink filthy wa- ter, be fed musty grain or strong- flavored vegetables, as onions and garlic, nor given access to decaying meat or substances that will flavor the product and impair its quality.

FERTILITY ON THE FARM.

When hay and grain are sold off the farm, there is a rapid loss in soil fer- tility. When products are marketed in the form of milk or meat the loss is materially less. The fertilizing values in one ton each of some of the stand- ard farm products, based on the sell- ing price of commercial fertilizers would make the manurial elements in butter worth 50 cents; of milk, $2.09; of corn, $6.75; of oats, $7.26; of wheat, $7.75; of clover hay, $9.07; and of alfalfa, $9.50.

Cows require ventilation just the same as human beings, but many farmers do not think so, judging from the odor and heat that meets one upon first entering the stables. Yet they should not be cold. Means should be devised for pure air circulation with- out any direct draughts.

When possible to avoid it, never give a full draught of water within an hour after feeding the horses. This effect is to carry much undigested food into the bowels, producing seri- ous disorganization thereof.

Chicken pox among the fowls can be avoided by feeding plenty of char- coal and occasionally some sulphur. It is a blood disease, aggravated by unclean surroundings.

Chicken lice and mites are now put- ting in their best licks at night just when the fowls need rest. Get after them with the kerosene can and sprayer.

No breed of dairy cows can continue as first-class dairy animals if the calves are allowed to run with the cows.

Back end to is the way to hitch a horse out where the wind is blowing. When they are loose so they can do as they like you never saw a horse stand facing a storm.

BLOOMING NOTES.

The sweet pea demands a daily stripping of every bloom. Producing seeds is done at the expense of blooms. However, flowers should be cut with sharp shears, never torn from the plant.

Never cut the flowers of the "Wax Plant" unless you wish no further blooms. Its flowers are produced in exactly the same "eye" each time, and if this eye is removed no more flowers will develop.

Weak liquid manure is just the stimulant most flowers need when they bloom. Do not stint them in this re- spect.

Another aid to profusion of flowers is plenty of water.

The dust mulch in time of drought is beneficial when water is scarce.

The late summer and fall market should not be glutted with young brood sows, as they are many times. Young and middle aged sows should be kept on the farm, provided they farrow fair-sized litters of pigs and take good care of them.

It is not necessary for the cow to give only a small quantity of milk in order that the milk may be rich. One can use a breed that is famous for their yield of rich milk rather than to get rich milk from a low breed.

It is being gradually understood that the best cow is the cheapest, re- gardless of the price paid for her and for such correspondingly good prices are always obtained.

It is said that a hog fed exclusively on corn will starve to death in about 120 days, but no wise farmer is in danger of making the experiment.

KEEP THE POULTRY FREE FROM LICE.

It doesn't do a bit of harm to say over and over that insect enemies should be kept in subjection at all times. Put two ounces of carbolic acid in a gallon of coal oil and keep it in a stone jug. This makes a good inshecti- cide and disinfectant. Paint perches and insides of the walls with this and no insect enemies will trouble your fowls. Paint the perches every week, top, bottom and sides, and the walls every two weeks.—W. Purvis.

CURE THE HORSE'S COUGH.

Many times a severe cough in a horse can be corrected by the use of the following remedy: Nitrate of pot- ash, three drachm; powdered digitalis, three-fourths drachm; camphor, three drachms. Mix well, divide into two equal parts and make each into a ball with a little raw linseed oil. Give one dose in the morning and the other in the evening. Continue each alternate day until relief is noticed.

A USEFUL ANIMAL.

Mr. Nelson, a Western farmer, pos- sesses a gentleman hog for which he has refused several hundred dollars. This hob is broken to the saddle and his owner rides him around his farm on his daily trip of "looking things over." The animal is not much on speed, his record being a mile in four- teen minutes, but the novelty of riding the hog pleases Mr. Nelson.

If the pastures fail late in the fall the breeding eyes should be givn extra feed in order to keep in good condi- tion so there will be no trouble in get- ting them in lamb.

Pigs will not drink as much water as they require if it is very cold and warming the water has induced them to drink more, besides, it is cheaper to warm the water with fuel than to warm it with grain foods.

Bloody milk is due to tiny hemor- rages or leakages of blood from the smaller blood vessels in the udder.

ORGANIZING THE FARMERS.

Movement Successful Because Started by Farmers Themselves.

Davidson county, N. C. has an agri- cultural organization with headquar ters at the county seat in Lexington. Local asciations have been formed at every one of 20 different points in the county. At Holly Grove is to be found the real reason and the exciting cause for the "better farming tour" of the Davidson county agricultural as- sociation with is twice and sometimes thrice a day speakings and daily corn shows, held in storehouses, churches, schoolhouses, old ut-of-the-way buildings, fraternity halls, opera houses, and at cross roads under spreading oak trees, says awriter in Southern Farming.

In 1911 some half-dozen progres- sive spirits formed themselves into a union, called the Davidson county good roads and agricultural associa- tion. Was this organization formed to hold corn shows and thus boost the price? No, the merchants were pay- ing as much in Lexington as else- where. Was the price of cotton too low, and was this association formed to cut down the acreage? No, the price of cotton had been very satis- factory to most of them. Was it formed to protest against the low price of wheat, a leading crop of this county? No, wheat had been sell- ing for more than a dollar a bushel, whch most of them felt was nearly enough. What, then, could have ac- tuated these men n the novel move- ment?

The object of the association was to arouse interest among the farmers and create an incentive fr growing more corn, wheat and other food and feed products per acre, and thus take advantage of the most excellent mar- ket which had quietly, but surely sprung up right at their own doors.

So the movement was set on foot and the agitation began. The first auxiliary association was formed in Holly Grove township. Perhaps the worst roads n the county in 1910 were to be found in that township. Now they are the best. Some of the poorest land occurs here, but Holly Grove township for 1911, made the largest acre yield of corn made by any adult farmer in the State.

Sweet corn should be planted three times in June, which will give you "roasting ears" 'till late in summer.

Dirt and filth taken into the stom- ach along with feed impair digestion and reduce the gain, also affecting the appetite and general health of the pig.

A progressive Ohio farmer uses an electric motor to run a fodder cutter and a blower to blow out the cut food into a silo.